Figure 2-1. ATOS Surveillance Planning Guidelines.

Prior to annual surveillance planning meeting:

- **Designate CMT Meeting Coordinator.**
  - *The supervisor designates a member of the CMT as meeting coordinator.* Although any CMT member can serve in this position, it is recommended that the CMT select an individual at the CHDO/CMO with organizational and leadership skills.
  - Pre-meeting planning should begin well in advance of the planned meeting date.

- **Notify ATOS CMO.**
  - CMTs will notify the ATOS CMO of the planned meeting date and the name of this year's coordinator as soon as possible.
  - Planning assistance will be provided with a coordinator telecon, planning checklists and personal visits with each CMT.
  - A representative from the ATOS CMO will attend each annual planning meeting.

- **Draft ACAT and notify CMT members that drafts are available.**
  - *The principal inspectors are responsible for collecting and organizing the information and data necessary to complete the draft version of the ACAT.*
  - Principal inspectors complete the ACAT to draft status based on all data, expertise, and experiential knowledge that are available.
  - Data packages are being prepared by analysts and will be provided to each CMT, with guidance on their use.
  - Data review should include a query of "no" responses from completed SAI and EPI.
  - When the draft ACAT is complete, Principals should notify the CMT members that the drafts are available and request that CMT members provide comments via the automation system within a reasonable time period (2 weeks at a minimum).

- **CMT members provide comments on ACAT.**
  - Comments on the ACAT should reference the specific element and risk indicator. In addition, all comments should address the Who, What, Where, When, How, and Why.

- **Review comments and revise drafts.**
  - The principal inspectors review CMT members' comments and, after considering all the comments, the PI revise the draft ACAT, as necessary based on those comments, prior to the annual planning meeting.
  - The PI may begin working on the draft CSP at this time and get as much preliminary work done as possible prior to the meeting.

During the Annual Meeting

- **Review draft ACAT and CSP with CMT at annual meeting.**
  - The order makes it very clear that the ACAT and CSP may not be finalized prior to the annual planning meeting.
  - *The PI brings the draft version of the ACAT and CSP to the annual planning meeting where they are reviewed and discussed by the appropriate CMT sub-groups.*
  - *The process of finalizing the ACAT and CSP at the meeting involves several steps.*

- **Divide CMT into sub-groups.**
  - Ideally, CMT members from all specialties attend a combined annual meeting.
  - After the preliminary meeting activities, the CMT is divided into two-subgroups to review the appropriate draft versions of the ACAT and CSP.
  - Sub-groups should be briefed on the air carrier information used to prepare the ACAT.
  - Whatever process used should allow all subgroup members a chance to share information at the meeting.

- **Share information between sub-groups.**
  - Prior to saving the ACAT as final, the POI and CSI should review the completed draft of the Airworthiness ACAT, and the PMI and PAI should review the completed draft of the Operations ACAT.
  - This information sharing is critical to gaining a complete assessment of the carrier, and may result in some additional adjustments to the tools prior to their being finalized.

- **Complete Draft of Comprehensive Surveillance Plan (CSP)**
  - *Both Operations and Airworthiness specialties must complete the CSP. The Principal Inspectors identify and record the surveillance requirements for each specialty.*
  - Although the order mentions development of the CSP as one of the activities for the annual planning meeting, there is no specific written guidance on how CMT members should be involved in this process.
  - The PI should review the draft CSP with the CMT members and obtain their input on the tentative plans for the frequency of inspections and identification of individuals for SAI teams and EPI assignments.
  - The PI may need additional time after the meeting to complete their instructions for specific inspection and finalize the plan.

- **Obtain information about CMT members' experience and training.**
  - The annual meeting provides the opportunity for PI to obtain information about CMT member's prior experience and training.
  - The PI may wish to ask for volunteers who would be interested in working on specific SAI teams or EPI.

After the surveillance planning meeting:

- **Principal Inspectors are responsible for developing the final CSP.**
  - *Principal inspectors are responsible for effectively identifying inspectors to accomplish the CSP and for providing instructions that target the CSP activities to the specific needs of their air carrier.*
  - The PI's most important work on the CSP typically begins after the meeting in order to coordinate the efforts of the entire CMT in accomplishing the surveillance needs for their air carrier

- **Identify inspector resources.**
  - In order to finalize the CSP, PI need to identify the appropriate teams or individuals to perform each inspection.
  - Factors the PI should consider during inspector identification are training, experience, qualifications, geographic location, availability, and workload.

- **Determine if resources are adequate.**
  - *If the PI determine there is insufficient staffing to accomplish all inspections in the CSP, they elevate the issue via a memo to their regional office through the CHDO/CMO Manager for resolution.*
  - Insufficient staffing involves not just numbers of inspectors, but where those inspectors are located and what qualifications are needed.
  - The PI play an important part in identifying the need for additional CHDO/CMO staffing, additional or relocated geographic staffing, and essential training requirements for CMT members.
  - This information should be provided throughout the year to the PI's manager.

- **The CSP is not driven by availability of resources.**
  - The CSP is not planned or retargeted based on the availability of resources.
  - If the required resources are requested but not provided, the inspections remain in the CSP as planned but unassigned by selecting the "Resources Not Available (RNA)" option.
  - An inspection designed as "RNA" can be changed to an inspector assignment any time additional resources become available.

- **Instructions help to ensure timely, high-quality inspection data.**
  - The CSP provides PI with a plan that is tailored to the current surveillance requirements for the specific air carrier. The key is for Principal Inspectors to provide instructions to ensure that activities are performed at the appropriate locations at the appropriate times to answer the questions on the job aid in a reasonably short timeframe.
  - Instructions help the PI to prioritize inspections and set timelines for starting and completing the activities by certain dates.
  - The CSP should include guidance on the type, location, and timing of inspection activities. The PI may request that the activities take place at specific locations or involve specific makes/models.

- **The purpose of surveillance is to obtain accurate, continuous, real-time data to support decision-making.**
  - *The purpose of surveillance is to provide an accurate, real-time, and comprehensive evaluation of the safety status of the air carrier's systems and compliance with the Federal Aviation Regulations.*
  - SAIs, EPIs and DORs are not comparable to the "R" and "P" activities assigned under the NPG work plans.
  - Inspectors are not evaluated by how many activities they enter into the ATOS data repository by a certain date.
  - Inspectors should not leave EPI open just so they have a place to report everything they observe during the normal course of their duties.
  - Observation of air carrier operations not included in a surveillance task may be captured as an investigative activity under PTRS.

- **Pre-planning and preparation are essential in ATOS inspections.**
  - Data Collection Tools should be studied to determine the level of observation needed for each particular element.
  - It is not appropriate for CMT members to perform random work activities and then try to figure out which EPI or SAI to use for reporting those activities.
  - If a CMT determines that more EPIs are necessary as the year progresses or if an additional risk develops, the CSP can always be re-targeted.

Safety Attribute Inspections (SAI)

- **Planning the number of Safety Attribute Inspections.**
  - The purpose of an SAI is to ensure that a particular area of an air carrier's operation incorporates system safety by inclusion of the six safety attributes and that it also complies with the applicable regulations.
  - The SAI captures baseline information (or certification status) on the systems that are in place and the EPI was intended to validate the performance of the system.
  - CMT should plan SAI for any subsystems/elements where there are significant operator changes or where there are safety concerns.
  - SAI should be accomplished in the order of priority that is generated by the ACAT.
  - ATOS CMT should have completed an SAI for each element within 3-5 years of starting surveillance using the ATOS, and then plan to accomplish an SAI for each element at least every five years.
  - If there are no significant changes in the air carrier's systems then there should not be a reason to plan another SAI outside of this rotational schedule, unless driven by risk assessment.

- **SAIs are Team Inspections.**
  - *SAI are executed at the element level, usually planned for at the subsystem level, and accomplished by a team of inspectors.* SAI are team inspections, with each team responsible for a subsystem or portion of a subsystem, under the leadership of a team coordinator.
  - This structure allows the CMT to assess the entire subsystem and obtain a "big picture" look at how the air carrier operates. When some CMT decided to assign elements from different subsystems to an SAI team, this concept was lost.

- **The SAI Team Coordinator (TC) is an important position.**
  - SAI Team Coordinators play an important role in organizing and coordinating SAI team activities.
  - The TC is responsible for ensuring that activities, such as personnel interviews, are not repetitive or redundant, and that all activities are completed to accurately answer the questions on the SAI.
  - The TC is a leadership role that should be assigned to an experienced inspector, with a solid knowledge of the air carrier, who is based near the location where most SAI activities will take place.
  - Teams can be comprised of inspectors with varying backgrounds, experience, and geographic locations.

Element Performance Inspections (EPI)

- **Planning the number of Element Performance Inspections.**
  - *EPI are designed to determine if an air carrier adheres to its written procedures and controls for each system element and that the established performance measures for each system element are met.*
  - In other words, is the carrier following their procedures and are those procedures accomplishing regulatory compliance and safety?

- **Determine frequency of EPI using EPI values from ACAT.**
  - Under ATOS, the structured CSP places inspector resources where they are needed most.
  - If the PI determines that additional EPI are required above the values generated by the ACAT, he or she should write a description of the reason for increasing the number of EPI in the "notes" section of the CSP.
  - In the event that an element does not apply to the air carrier because they do not conduct that type of operation, the EPI Minimum Frequency, Initial Plan EPI, and Current Plan EPI column entries should be disregarded. Do not assign an inspector name to one of these elements, select "Element Not Applicable."

- **Elevate number of inspections based on sound data analysis.**
  - There may be valid reasons why a PI might want to elevate the number of inspections that are produced by the ACAT, but the PI should avoid arbitrarily elevating the number of inspections when that decision is not based on sound data analysis. Use the "notes" column to record the reasons for elevating the number of inspections.

- Any area where significant risks have been identified will be elevated to heightened frequency by the ACAT and have five EPI assigned.
- The PI can give instructions that these heightened EPI are high priority and request accomplishment by a certain date.
- Retargeting is always an option should sound data analysis indicates a need for additional EPI beyond those originally calculated by the ACAT.

- **Heightened inspections are generated for areas of concern.**
  - These are inspections that are generated because there is an area in the ACAT where the CMT has expressed concerns.
  - Since they are heightened there is probably a need to have the surveillance results reasonably quick.
  - The inspector resources should be concentrated on accomplishing at least one of each heightened EPI within a short timeframe, 30-60 days of the CSP.
  - Upon receipt of the quality data from the heightened EPI, the PI is able to make a decision on what additional actions may be needed.

- **Semi-annual, Annual, and Quarterly Inspections.**
  - These inspections are generated by the ACAT with other than a heightened status.
  - Since the purpose of an EPI is validation of an air carrier system to ensure that it is working, the PI should provide guidance for completion of these inspections based on environmental factors. For example:
    - Activities for an EPI on carry on-baggage would be most effective if conducted at those stations with high passenger loads and during times when travel is high.
    - Activities for EPI on maintenance facilities should be accomplished when there is maintenance being performed.
    - Activities for EPI on deicing should be conducted during environmental times that icing is likely to occur.
  - To ensure that inspectors do not leave an EPI open for a time that is longer than necessary to collect quality data, instructions should include a targeted completion date.
  - PI can use queries to track the completion of EPI activities.
  - Managers and supervisors should monitor the inspector's progress towards completing the EPI by the date requested.

Retargeting

- **Retargeting is an integral part of the dynamic CSP.**
  - The purpose of Retargeting is to provide the CMT with the means to dynamically redirect surveillance at any time in response to changing conditions at an air carrier. These may include changes in the airline's status or situation (changes in management or labor relations); accidents and incidents; or observations made by Inspectors during surveillance activities.
  - Anytime surveillance data identifies a problem or other external data triggers an issue, the PI assesses the information and determines any retargeting requirements. The important point here is that the CSP is a dynamic plan. By using the retargeting functionality and the other automation features, the plan can be continuously updated based on the quality data collected by the CMT members.
  - Retargeting should not be conducted in response to CMT internal considerations such as staffing or budget constraints. A CSP can be retargeted as often as needed, however the Retargeting process is not intended to be used on a calendar basis as a means of closing out a planning cycle.
  - In addition, it is not advised to continuously retarget the same elements within a CSP (EPI Plan) in order to generate additional inspections. An acceptable solution is to consider conducting a thorough system assessment, such as a SAI, for those elements.
  - If retargeting is deemed appropriate to focus additional resources in an area of concern, the PI must determine which elements of the ACAT are related to the area of concern and generate new versions. This can be done for the entire air carrier or for selected systems, sub-systems, or elements.
  - One other point of clarification, Retargeting does not automatically delete or remove any information contained in the current CSP.
  - Retargeting is not a negative thing. It doesn't mean that something was faulty in the original CSP. It is perfectly normal for a CMT to retarget several times a year based on the analysis of data or on changing circumstances.

- **Inspector assignments can be changed without retargeting.**
  - This includes changing from an "RNA" designation to an inspector or vice versa and re-assigning an inspection that has not yet been started.